Volume IV—No. 12 MONTANA FISH & GAME DEPARTMENT December, 1969

Director's Column

On December 11 and 12, a P.E.P. rally was staged on the campus in Missoula. The letters stood for Peace, Environment, and Poverty, and for the two days students were free to attend lectures on the topic of their choice. In Minnesota, students at the University recently deposited 26,000 Disposable containers on a drink manufacturer's property as a protest against the throw away philosophy. In California and Minnesota, mock funerals were held for the internal combustion engine; again college and university students were involved. All across the country students seem to be "turning on" again and this time their "thing" will apparently be the environment. Unlike the protesting that was directed at a war on the other side of the world, this time the targets of their protest will be much handier and perhaps easier for them to zero in on. If the environmental movement on the part of our nation's students has the same dedication that the Peace movement had, it will certainly be an uncomfortable time to be a polluter.

In the past it has generally been our roll to identify polluters since we represented the sportsmen who for all these years have shouldered most conservation battles virtually alone. If I may digress briefly, I would like to point out to the newcomers to the now popular conservation movement that Montana's sportsmen have been furthering the principles of conservation for many years and through times when it was not necessarily the most popular cause to be furthering. Many of the values we are fighting for now would have been long since lost if it had not been for their selfless contributions through the years. At the rate the ranks of the movement are swelling, it appears there will be many groups identifying the problems and demanding their solution in the near future.

With this greatly increased involvement perhaps it is time the Montana Fish and Game Department reappraise its own position and think in terms of assuming a new or multiple roll within this movement for a quality environment. For example, we have learned to identify and track sources of contamination in water. Could we now adapt ourselves to designing systems that would avoid the contamination? Our technicians learned to describe how changes in land use have resulted in decimated wildlife populations. Could they now perhaps design the restructuring of an optimum wildlife environment?

The needs of our nation for natural resources are rapidly pressing in on Montana. Our State can and will develop to meet those needs; it is really only a question of how. Perhaps the time has come when we must commit our knowledge to making that development as ecologically compatible with the Montana we love as is humanly possible. The time for the hard work is at hand. We are ready, the question now is, will the "developers" have us? Are they ready to try?

Frank H. Dunkle

Even the bald eagle, national symbol of freedom, strength and courage, is dwindling because of mans' contamination of the environment.

Fur-bearing animals have played an important role in the exploration and development of Montana. Many trappers now trap for fun as well as profit. Photo by Jery Atwell

Trapping

By this time of year Montana's wild creatures are mostly ready to cope with the lean, cold days soon to come. Some, like the ground squirrels and woodchucks, lie deep asleep in their sheltered winter quarters. Bears will sleep lightly, while skunks will be out and about during the more comfortable periods but holed up during the worst of weather. Still others including foxes, coyotes, and people must face each new day.

The four-footed animals that must brave the rigors of winter have been provided by nature with thick coats of fur to keep them warm. By mid-November the furs are glossy, luxuriant, and prime for pelting. The interest in harvesting furs varies with the radical ups and down of fur prices. For the serious trapper the prices of pelts mean bread and butter. Many persons, however, now trap largely for the sport, and income from pelts is more or less a bonus.

A check on the current prices of furs shows their probable value at this time: male mink, $10.00-$15.00; female mink, $4.00-$6.00; adult beaver, $20.00 - $25.00; bobcats, $15.00-$25.00; red fox, $7.00 - $10.00; coyote, $7.00-$12.00; badger, $2.00-$7.00; skunk, $1.00-$2.00; raccoon, 2.00-$5.00; weasel, $.50-$1.50; marten, $3.00-$8.00; otter, $5.00-$25.00.

LICENSES

Several animals are listed in fish and game codes as furbearers. Trapping of legally designated furbearers is carefully regulated, and persons who wish to trap them must purchase a trapping license. The officially classed furbearers are marten, otter, muskrats, fisher, mink, beaver, and black-footed ferrets. There is no trapping season on furbearing animals other than these, nor is a license required to take them. Other furbearing animals in Montana include coyotes, foxes, badgers, bobcats, raccoons, weasels, and skunks.

Annual cost of a regular trapper's license in Montana is $10.00. Only Montana residents 12 years or older may purchase a general trapping

MONTANA OUTDOORS

Published monthly by the Montana Fish and Game Dept., Mitchell Building, 125 Roberts St., Helena, Montana 59601.

Second class postage rates paid at Helena, Montana 59601.

license. However, a landowner or tenant, or a member of the immediate family of either, may get an annual trapping license for $1.00. This allows the license holder and his immediate family to trap furbearers, **excepting beaver,** on the lands they own or lease. Trapping licenses are available through fish and game district headquarters offices in Kalispell, Missoula, Great Falls, Bozeman, Billings, Glasgow and Miles City.

TOOLS OF THE TRAPPER

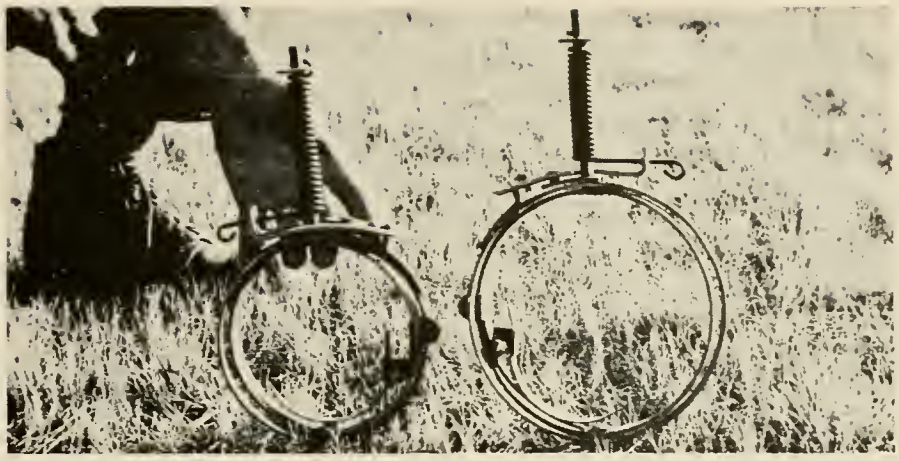
Whether one is interested in trapping for fun, sport, or to rid the farmyard of some pest, a basic knowledge of the trapper's tools and how to use them is essential. Many books have been written on trapping methods and even volumes have been published on how to trap just one kind of animal. Here, we will attempt only to briefly discuss proper techniques in setting, placing and concealing traps.

A few sets of each kind of animal are described in detail. The trapper, particularly the beginner, may use these sets as guides in order to develop his own sets as conditions require. The only way to become proficient at trapping is by practice and by studying the habits of animals that you are after.

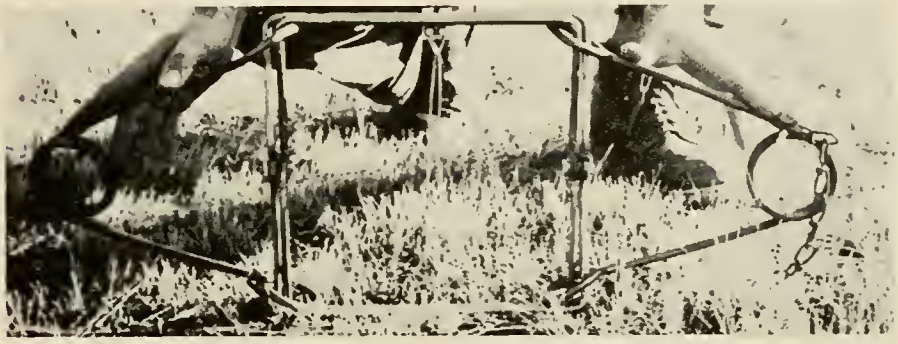
Most of the following information has been provided by H. Max Stone, District 7 supervisor for the Montana Fish and Game Department.

EQUIPMENT. Suggested equipment for trapping includes the following:

1. **Traps**—suitable sizes according to kinds of animals.
2. **Hatchet or hand axe**—necessary for cutting stakes and also useful as a digging tool.
3. **Hand trowel or small shovel**—convenient for making hole sets and removing dirt.
4. **Piece of old canvas** or other similar material 3 feet x 4 feet for kneeling on while making dirt sets and for removing excess dirt. Try to keep it free of human scent.
5. **Sifting box** made from ⅛ inch hardware cloth for replacing dirt on traps set for fox, coyote and badger.
6. **Wire,** size #9 and #14, for securing traps and making drowning rigs.
7. **Wire cutter pliers.**
8. **Trap pan covers** — cut from scraps of cloth. A discarded pair of old overalls, or similar material, is good for this purpose.



The Bigelow humane trap. This trap will hold an animal caught by a foot as well as about the body. An adjustable spring affords various closing strengths.



This #330 Conibear is the size recommended for large animals like beaver and otter.

9. **Quart jar** with lid for carrying baits, lures and scents.
10. **Pair of light** canvas or cotton gloves.

A light pack basket or pack board is handy for carrying your equipment.

TRAP SIZES

There are many kinds and sizes of traps on the market including "humane" traps which kill animals instantly. An advantage of the humane trap is that there are no losses to animals pulling out of traps or mutilating their limbs to get free.

Following is a list of trap sizes and types recommended for different animals. Some trappers prefer to use other sizes and types than the ones listed but these are commonly preferred.

Animal	Trap Size
Fox	#2 Coil Spring or #3N
Coyote	#3N
Bobcat	#4 Long Spring or #3N
Beaver	#14 or 4 Long Spring
Badger	#2 or 3 Long Spring
Raccoon	#2 or 3 Long Spring
Mink	#1½ Long Spring or #2 or 22 Coil Spring
Muskrat	#0 or 1 Long Spring
Weasel	#0 or 1 Long Spring
Marten	#1 or 1½ Long Spring

The Victor Conibear trap is made in two sizes; the smaller #110 for muskrats, weasels and similar animals; and the #330 which is recommended for beaver and otter. Another type of humane or "killer" trap is the Bigelow. This trap is made in two sizes and will take animals from muskrats and weasels to beaver and badgers.

TRAP CARE

Many trappers like to treat their traps to remove newness, oil film and human odors. Keeping traps and trap sites entirely free of human scent is one of the most important items in successful trapping. The following method is satisfactory for this purpose.

Place traps in a tub or bucket of water that contains one can of lye to every ten gallons of water. Place the trap rings between the jaws to hold them open during the cleaning and coloring process. The use of lye is not necessary but will aid in grease and oil removal. Boil the traps until all factory grease is gone, then dump them on the ground and let them lie a few days until they become heavy with rust. Remove the rust with a wire brush and boil the traps in clean water for a few min-

utes. Make a batch of bark tea by boiling about a gallon of bark chips in two gallons of water. Boil the cleaned traps in this tea until they turn a bluish-black, then hang them up in a clean place until they are to be used.

If you want to wax your traps, place three cakes of petroleum wax in two or three gallons of boiling water. Dip the traps into the water and allow time for them to become hot. Remove the traps by lifting them slowly from the bucket, and a thin coating of wax will remain on them. This helps prevent rusting and also helps keep traps free in freezing weather.

Following are specific sets for the more common furbearers. There are many variations of these sets and though only a few are described here, the novice will gain a great deal by using these basic sets as guides and devising his own variations as he becomes more proficient with experience.

PLACING TRAPS

Trapping conditions will vary from set to set, but the basic fundamentals for placing traps will remain the same. All traps must be placed on a firm footing so they will not move or give if an animal steps on a part other than the pan. When making a dirt set, firm the traps by placing soil around the springs and jaws, packing it with your fingers. This is particularly important when making coyote and fox sets, for if an animal steps on a trap and it gives, he may suspect a mouse-run and dig up the trap.

When placing traps under water or in wet or oozy mud, make sure that there is no mud or other obstruction under the pan. A rock, old board, or other solid object will make a firm platform for a trap bed. Place the footing about two inches below the desired trap level. This affords a firm base, but provides room for hiding the trap.

Traps should be placed so animals enter from the hinge ends of the traps. Traps set in holes or cubbies, should be placed with the springs toward the back side and away from the approach as much as possible. Always bend the springs on long-spring type traps toward the dog or trigger sides at about a 45 degree angle so the free jaw may lie flat. Adjust the pans so they lie **flat** and **level** with the jaws when the traps are set. Fasten traps securely or use drag hooks, whichever is appropriate.

TRIP STICKS

When placing a trap in a blind set, a guide stick is sometimes necessary to cause animals to step on the pan. An animal will not step **on** anything he can step **over.** Place a small stick, about two inches high, on either side of the concealed trap. Any animal approaching the stick will step over it onto the trap pan.

DROWNING RIGS

Often, it will be advisable to set traps so that captured animals can get to deep water and drown. Beaver, mink, raccoon and muskrat sets are usually placed in this manner. These animals, not quickly drowned, may mutilate themselves in atempting to get out of traps.

A one-way slip can be made, or large weights tied closely to the traps. This will weight the animals down in deep water. The weights should be about as heavy as the animals you intend to trap. Drowning stakes are also effective in keeping animals in deep water so they will drown. A downward loop can be fashioned from #9 wire and anchored in deep water. The trap ring is placed over the wire so it will slip down and become caught in the loop. When an animal is caught in a trap, it usually jumps for water. This should be its last jump. When trapping under ice, no drowning device is needed.

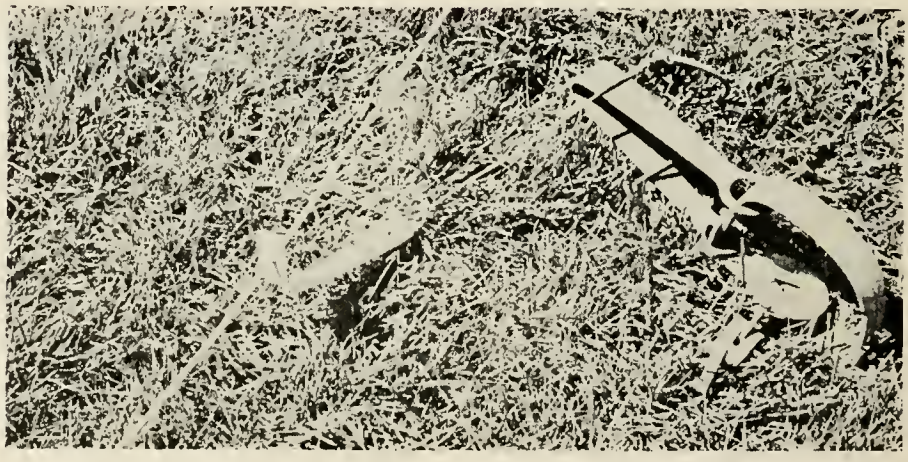
TYPES OF SETS

The Cubby Set. Animals such as mink, skunks, weasels, bobcats and foxes can be taken with a cubby set. A cubby is some shed or stall-like type of enclosure, natural or artificial. A cubby may be made of rocks, logs or it may be a natural formation that could be used with or without modification. These sets have the advantage of protecting traps during bad weather. Cubbies may be blind (closed) or tunnel-like (open).

Blind Sets. It is often desirable to hide traps so that passing animals will step into them. The traps are buried in the ground or hidden in mud along a stream. A trip stick is sometimes helpful when using this type set. Coyotes, beavers, foxes, minks, and raccoons may be trapped in this manner.

Baited or Scented Sets. These sets are usually just blind sets with some lure or scent to attract an animal's attention. There are several good scent and lure preparations sold commercially. You may make your own; however, the beginning trapper will

A wire loop made from number 9 smooth wire is a good drowning device. Care must be taken so the loop remains in the position shown above, and not on its side.



A trap fastened to a one way slip is an effective drowning device. Fasten one end of the run-wire securely to the stream bank; the other end is anchored in the stream. The slip is made from an L-shaped strap ½ inch wide, 3/16 inch thick, and 6 or 8 inches long. The small leg of the L should be about ¼ to ⅓ the length of the long portion.

do well to use commercially prepared scents.

MINK

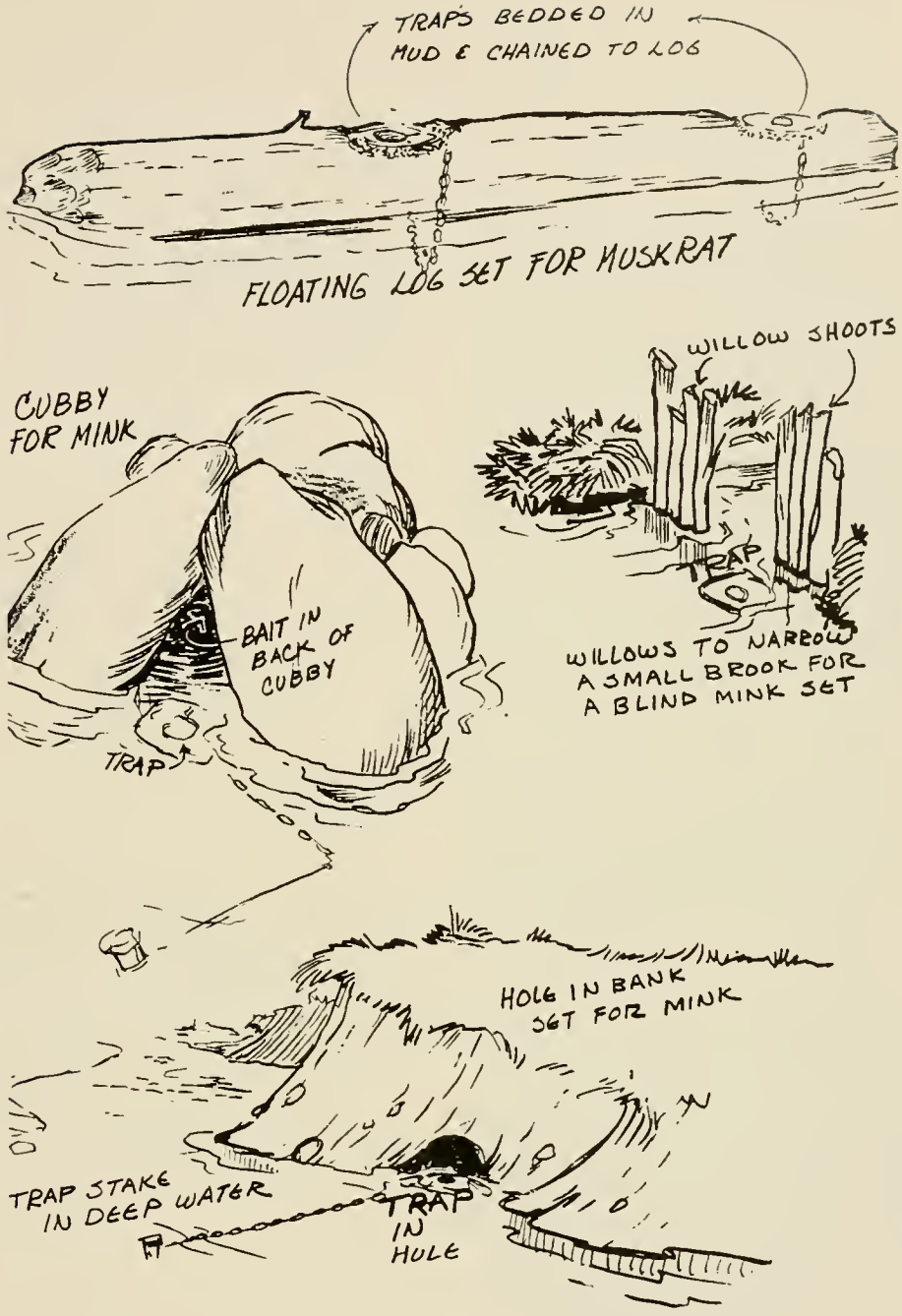
Blind sets are very successful for taking mink. These sets may be located along a creek or stream where mink habitually enter and leave the water. A #2 coil spring trap hidden in shallow water and staked to drown any captured animal is very effective. If the stream is frozen, the trap may be hidden under loose debris or snow along a mink trail. Since mink can't be drowned in this type set, double-jawed traps such as the Victor #22 coil spring are very good and will help prevent wring-outs.

Areas where feeder streams or springs dump into major streams are good locations for mink sets. If a suitable area is too wide, it may be narrowed down with willow brush or other sticks.

Another good set for mink can be made by digging a hole into a stream bank. The hole should be about eight inches in diameter and three feet into a bank along a stream. The hole should be situated so that there are one or two inches of water in the bottom. A #22 coil spring or 1½ long-spring trap is concealed inside the mouth of the hole and staked to drown a captured animal. Bait may be placed at the back of the hole and/or a few drops of scent placed eight to ten inches above the set on the end of a dry stick. If possible, stand in the water while making this type set and splash water over the hole entrance after the set is completed. This will eliminate much of the human odor and give the hole a fresh appearance.

A hole set may be made as a dry land set with the trap covered by loose dirt or leaves and then scented. Many mink trappers wear rubber gloves to make mink sets. This is desirable, but not necessary if reasonable care is used to prevent excessive human odor from contaminating the set.

The cubby set also makes a good mink set. Construct a cubby so it is five or six inches wide, four to six inches high and about 18 inches long. Place a trap in the mouth of the cubby if a closed-type is used and bait or scent the closed end. If a tunnel-type is used, place the trap in the center of the cubby and bait or scent above the trap.


TRAPS BEDDED IN MUD & CHAINED TO LOG
FLOATING LOG SET FOR MUSKRAT
WILLOW SHOOTS
CUBBY FOR MINK
BAIT IN BACK OF CUBBY
TRAP
TRAP
WILLOWS TO NARROW A SMALL BROOK FOR A BLIND MINK SET
HOLE IN BANK SET FOR MINK
TRAP STAKE IN DEEP WATER
TRAP IN HOLE

MUSKRATS

Muskrats are easily trapped. Traps may be placed in runs leading to houses or bank dens. It is unnecessary to conceal the trap. Excellent locations are next to feeding stations where traps may be staked in the water. Feeding stations are little mounds of mud, partially submerged rocks and logs, and bunches of grass and cattails along the water. Muskrats sit upon the stations while they feed or rest. Another good set is made by placing a trap in the notch of a floating log used by muskrats for landings. Nail the trap chain to the underside of the log. Bed the trap in mud and the set is ready. Often, on logs five to six feet long, two or three traps may be set in this manner. Apple, carrot, parsnip, etc., may be used as bait, or a few drops of commercial muskrat lure may be placed at the back of or above the trap site.

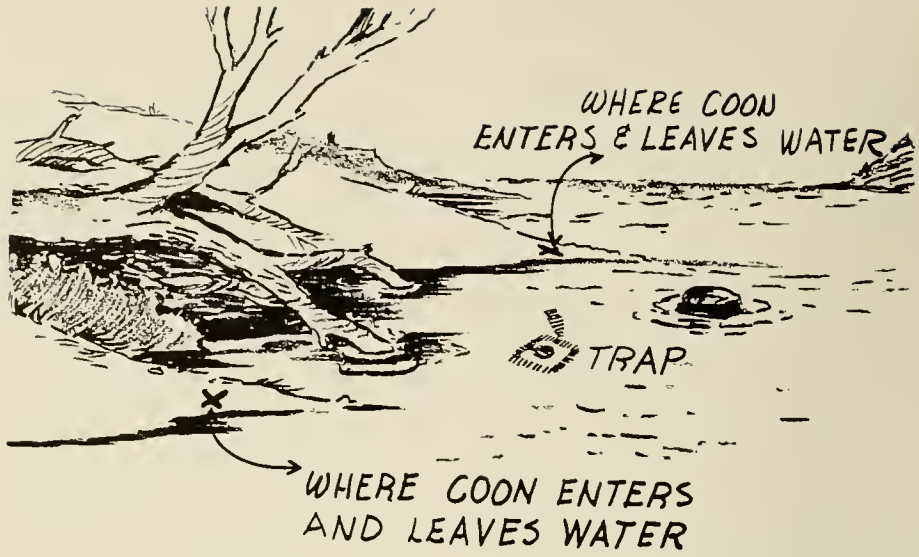
When streams and marshes are frozen, holes are chopped through the ice and traps placed in runs or den outlets. Traps may also be placed inside muskrat houses. Any part of the house cut away for placing the trap must be replaced.

RACCOON

Raccoons are strong animals and a size two or three trap should be used. Dry-land sets are made by burying a trap next to a trail used by raccoons. Use fine dry soil or leaves to conceal the trap. Traps are concealed much the same as coyote or fox sets. Some fish oil or oil of anise is a good lure to use on these sets. Old stumps and logs next to a stream are ideal places to look for raccoon sign and a set may be made near them.

A dirt-hole set made exactly like that for fox and coyotes can be used effectively on raccoons. Bait with fish oil, oil of anise or a commercially prepared raccoon scent. Wire and stake the traps securely.

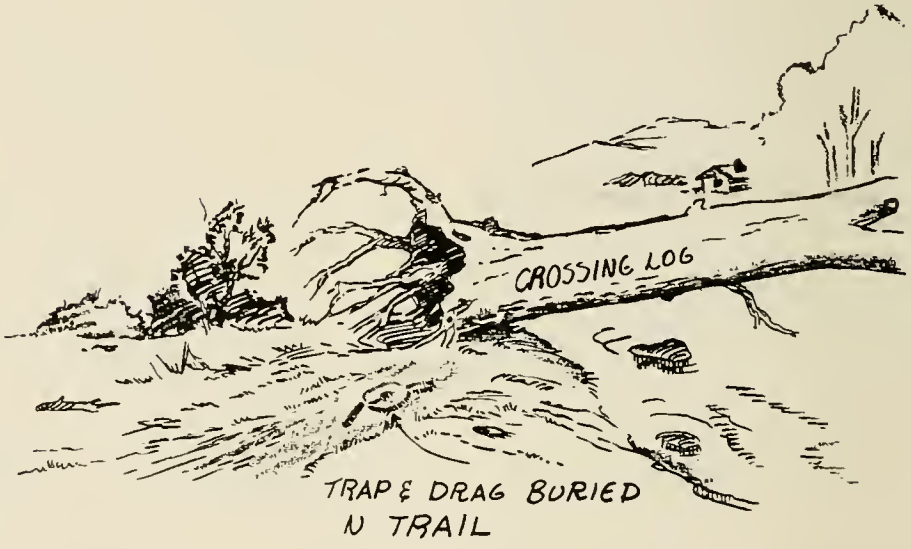
Water sets are made by placing a trap in three or four inches of water. Cover the trap with mud and bait with oil of anise, fish oil or a commercial lure. Find a place where tracks indicate raccoons are entering or leaving the water. Use guide or trip sticks to guide animals into traps. A riffle is a good place to set for racsoon. The set may be made either in the riffle by placing the trap on a rock and baiting, or it may be made along the stream bank. All water sets should be rigged to drown a captured animal. Water sets made for raccoons often take mink and muskrats, so are valuable dual-purpose sets.



SKUNK

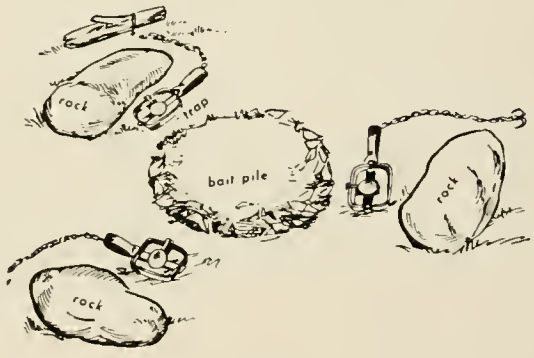
Skunks are easy to trap. A small cubby set made with rocks and baited with tainted meat, chicken heads, or chicken entrails is very effective. A size 1½ trap with double jaws is recommended for skunks. Traps placed near the openings of small culverts will take skunks. A chicken head or a tainted piece of meat nailed to a fence post with a trap beneath it is satisfactory. The trap need not be covered.

If a large quantity of bait is available, such as a dead calf, bucket of chicken heads or like material, cover the bait with leaves or light trash. Place three or four traps around this bait and toggle them with drags. A rock placed on the outside of a trap away from the bait is an excellent guide to insure that the skunk steps on the pan. Several animals may be taken during a single night in this manner.



BOBCATS

Cubby sets are good for taking bobcats. Bobcat cubbies should be quite large and can be made of rocks and/or logs. The opening should be from one to two feet wide and at



A bobcat cubby constructed of dead wood found at the site.

least two feet high. A #4 trap buried in the snow or hidden under loose debris or leaves and wired securely is preferred. Some trappers like to use two traps.

Bobcats depend on their keen eyesight and not so much on scent to locate their food. A dead rabbit, tied securely in the cubby behind the traps makes a good bait. Some commercial cat scent or oil of catnip may be used along with the bait. Place a few drops in the back of the cubby.

Remember that bobcats travel considerable distances in search for food, so don't expect a catch every night.

BEAVER

Traps set for beavers may be placed at the bottom of beaver slides or runs. These are paths along streams that beavers make to get from the water to their food supply on land. Place the trap in about four to eight inches of water just below and slightly to one side of the point where a slide enters the water. The traps should be heavily weighted or wired to a drowning device. Bait of green willow, cottonwood, or aspen twigs are stuck in the mud above the trap. Scent may also be used and should be placed on a dry stick about 12 to 18 inches above the hidden trap.

Another beaver set may be made by placing traps in runs under water or traps may be placed in dens or house openings. Guide sticks may be necessary. No bait or scent is used for this type set.

Trapping under ice in winter is more difficult, but can be done by using a stout, dry pole to which traps are wired. Do not use a green pole as beavers may chew it. The traps are placed on a platform fastened to the pole. Bait sticks may be nailed or wired to the pole about 12 inches above the trap. This set is particularly good around a cache (food pile). Traps may be wired to a platform which is fastened to the pole, or placed on the bottom of the stream or pond.

When using a dry pole set, stick the end of the pole firmly in the mud, leaving the other end sticking above the ice. The pole will freeze solid and no drowning rig is needed. A beaver is a very strong animal and traps should be anchored securely.

THE #330 CONIBEAR TRAP FOR BEAVER

The #330 Conibear trap is quite effective for taking beaver through the ice. Two methods seem to give satisfactory results.

1. Set and bait the trap and suspend it through a hole cut in the ice beside a cache. A stick to suspend the trap is wired to the trap chain and placed across the hole. Best results seem to be obtained when the trap is barely touching the bottom of the stream or pond.

2. Set and bait the trap as explained above. Wire the trap to a stout, dry pole. Position the trap on the pole so that when the lower end of the pole is pushed into the mud the trap will just be touching the bottom. The top of the pole should protrude through the hole in the ice and will freeze in overnight.

The #330 Conibear trap can be set in runs or den openings where there is no ice.

COYOTE AND FOX

The most common sets for these animals are the scent-post set and the dirt-hole set. A size 3-N trap is recommended for coyotes and foxes. If only foxes are trapped, the #2 coil spring trap is excellent.

To make the scent post set, dig a trench 12 inches wide, 30 inches long, and 3 inches deep. Place the excess dirt on your kneeling cloth.

Set the traps, making sure the trap pan is level with the jaws. Bend the trap springs toward the trigger side so the jaws will lie flat.

Bed the traps firmly at either end of the trench and hide the chain and drag in the middle of the trench. Place the pan cover under the jaws, making certain the trigger release is free.

Traps shown bedded at either end of the trench.

Cover the traps and firm the dirt with your fingers. Fill in the trench with loose dirt, leaving about one-half inch of dirt over the trap pan. (Shown at fingers)

Positions of the buried trap pans.

Place a few drops of scent on a dry piece of wood or old cow chip which is placed between the two traps. Smooth the set to blend with the surrounding ground. Rescent your set every other day.

If there is snow on the ground, traps may be buried in the snow and a scent post provided just as with sets where traps are placed in soil. Use care to brush out your tracks after making a snow set.

Place the pan cover under the jaws, making sure the trap pan is level with the jaws. Bend the trap springs toward the trigger side so jaws will be flat.

When the ground is frozen, a dirt-hole set can be made with dry dirt obtained from an ant hill or litter from a chicken house. Any dry dirt is satisfactory. A trench 12" x 30" for foxes and 12" x 36" for coyotes is chipped out of the frozen ground about three inches deep and an inch-and-a-half to two inches of dry dirt placed in it. Set traps on this in exactly the same way as in the regular scent post set. When the trap is set, punch a hole in the dirt near it and put scent in the hole. Re-sent the area every two or three days.

Another method for setting traps in snow is to kick away the snow in an area ten or 15 feet in diameter. Pour dry dirt on the ground and set as a normal scent post or dirt-hole set. Don't be alarmed at the disturbance caused by kicking the snow as this seems to actually attract the attention of animals.

MARTEN

These mink-sized animals inhabit the wild mountain areas. Marten are agile tree-climbers, consequently a common practice is to set a #1 or #1½ trap in a notch cut in a large tree. Marten trapping is usually done during deep snow conditions and the sets should be made well above the high snow line. Pine squirrels or smoked fish make good bait for marten sets. Traps need not be covered, but should be fastened so that an animal, after being caught, will hang away from the tree.

A Bulletin describing the care of pelts is available free of charge from the Fish & Game Department.

SCENTS AND LURES

There are many good commercially prepared scents and lures on the market. Two types of scents are used. One is a urine and/or scent gland preparation which attracts the attention of animals. The other is a food scent which will cause animals to search for bait. It is recommended that the beginner obtain commercially prepared scents and lures.

If you would like to try making some kind of scent, however, fish oil is one of the more easily made and is an important item in many lure formulas. When used alone, fish oil is attractive to many animals including raccoons, mink, and skunks.

Though the making of fish oil is relatively simple, it must be done during the summer. Cut perch, carp, suckers, or some other fatty fish into chunks and place them in a heavy, clear glass jar. Lay a flat pane of glass over the opening so gasses can get out but flies can't get in.

The jar must set where the sun hits it full force. In warm weather, the solids will gradually break down and a clear oil will rise to the top. This oil may be poured off into a clean bottle for future use.

MONTANA
FISH AND GAME DEPARTMENT
HELENA, MONTANA 59601
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MONTANA OUTDOORS
Published monthly by the Montana Fish and Game Dept., Mitchell Building, 125 Roberts St., Helena, Montana 59601.
Second class postage rates paid at Helena, Montana 59601.

DECEMBER, 1969